

TITLE: Multiposition Flashpoint Tester

IDENTIFIER: 1998-SR-WSRC-LL-0003

DATE: May 20, 1998

LESSONS LEARNED STATEMENT:

Because of a software error, a multiposition flashpoint tester malfunctioned and exceeded its maximum operating temperature.

DISCUSSION OF ACTIVITIES:

On 3-30-98, a multiposition flashpoint tester in the Analytical Development Section Laboratory at the Savannah River Site malfunctioned and exceeded its maximum operating temperature, while processing some samples. The particular unit was a Petrolab Miniflash High Temperature Flashpoint Tester with an eight-position autosampler. The instrument was set to run a set of eight samples; after the testing of the eight samples were completed, the unit malfunctioned and continued to look for a ninth sample. The unit tried to set the oven temperature to the initial temperature for the ninth sample. However since there was no ninth sample, there was no value for the initial temperature, thus, the temperature continued to ramp up without a limiting value. When the problem was discovered, the temperature had reached 823 degrees F and was still rising, although, according to the manufacturer, the maximum temperature for the instrument was 752 degrees F.

The instrument was immediately removed from service and a stop-work order was issued by the Task Supervisor. The vendor was contacted and the unit was returned to the vendor for troubleshooting. The vendor determined that the problem was a software error in the particular version that was installed in 1997. The controlling software tells the instrument to keep sampling until it has tested eight samples. After eight samples, the unit is suppose to stop operating. However, if the unit is started at an initial position other than position Number 1, it will continue to look for additional samples at the end of the sample set. The unit will attempt to go to a nonexistent sample nine and the temperature will continued to ramps up without limit.

The vendor has upgraded the software to a newer version and will return the unit shortly. This is the first problem the vendor has seen with these particular units. The vendor is currently pulling their service records to determine the number of units affected and the appropriate actions necessary.

The following information maybe helpful in identifying the instrument:

Instrument: Miniflash Flashpoint Tester
Model: CCA-FLA/FLAH
Software version: 2.83 SN 04-11-111
Manufactur: Grabner Instruments, Austria

U.S. Distributor: Petrolab Corporation
874 Albany-Shaker Road
Lantham, N.Y. 12110

Phone: 518-783-5133
Fax: 518-783-5185
email: service@petrolab.com

Vendor Contact: Tom Shudt
WSRC Supervisor: Amy Ekechukwu (803) 725-1236

RECOMMENDED COMPLEX ACTIONS:

Facilities in the DOE complex should disseminate this information to appropriate personnel to make them aware of this instrument's malfunction. Any facilities with this particular instrument should 1) stop use immediately, 2) contact the vendor, and 3) request that the latest software version be installed.

ORIGINATOR: WSRC, QA & Performance Evaluation Section Site Lessons Learned
Coordinator

CONTACT: Bill McEvoy, (803) 952-9900

AUTHORIZED DERIVATIVE CLASSIFIER: Ralph E. Painter

REVIEWING OFFICIAL: Ralph E. Painter

PRIORITY DESCRIPTOR: BLUE/INFORMATION

FUNCTIONAL CATEGORY: RESEARCH & DEVELOPMENT

KEYWORDS: Flashpoint, Tester, Malfunction, Temperature, Exceeded

REFERENCES: None Meredith Brown ESH Lessons Learned Program Manager 505 667 0604